NORTH CAROLINA DIVISION OF AIR QUALITY

Air Permit Review

Permit Issue Date: INSERT DATE

Region: Winston-Salem Regional Office
County: Davidson
NC Facility ID: 2900300
Inspector's Name: Taylor Hartsfield
Date of Last Inspection: 03/30/2016
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Transcontinental Gas Pipe Line Company, LLC - Station 155

Facility Address:
Transcontinental Gas Pipe Line Company, LLC - Station 155
650 Becky Hill Road
Lexington, NC 27295

SIC: 4922 / Natural Gas Transmission
NAICS: 48621 / Pipeline Transportation of Natural Gas

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP: 15A NCAC 02D .0503, 1806
NSPS:
NESHAP: MACT Subpart ZZZZ and DDDDD and Case by Case MACT 112(j)
PSD:
PSD Avoidance:
NC Toxics:
112(r):
Other:

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Mike Barron Supervisor of Operations (336) 787-5582 650 Becky Hill Road Lexington, NC 27295	Michael Callegari Manager, Environmental Services (713) 215-4584 PO Box 1396 Houston, TX 77251+1396	Cecilia Chapa Engineer III (713) 215-2964 PO Box 1396 Houston, TX 77251+1396

Application Data

Application Number: 2900300.16A
Date Received: 02/05/2016
Application Type: Renewal
Application Schedule: TV-Renewal

Existing Permit Data
Existing Permit Number: 09088/T11
Existing Permit Issue Date: 02/03/2015
Existing Permit Expiration Date: 11/30/2016

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2014	---	2.92	2.45	5.93	0.1100	0.6772	0.2621 [Formaldehyde]
2013	0.0100	4.56	2.04	11.02	0.1100	0.4029	0.1710 [Xylene (mixed isomers)]
2012	---	5.77	4.25	8.45	0.3400	1.32	0.9680 [Formaldehyde]
2011	0.0700	69.25	35.36	101.10	4.22	20.58	15.04 [Formaldehyde]
2010	0.1300	132.02	69.26	196.18	7.40	41.14	30.15 [Formaldehyde]

Review Engineer: Charles F. Yirka

Review Engineer's Signature: **Date:** INSERT DATE

Comments / Recommendations:
Issue 09088/T12
Permit Issue Date: INSERT DATE
Permit Expiration Date: INSERT DATE

I. Purpose of Application

This permitting action is a renewal of an existing Title V permit pursuant to 02Q .0513. The existing Title V permit **(09088T11)** was issued on **February 3, 2015**, with an expiration date of **November 30 2016**. The renewal application was received on **February 5, 2016**, or at least nine months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

The following changes were requested as part of this renewal permit application:

- ES-A/C1 was permitted as a non-emergency reciprocating internal combustion engine (RICE) and previously reclassified as an emergency unit. This renewal permit required updating to address EPA's recent vacatur of the RICE MACT provisions allowing engines to operate as demand units.
- ES-BLR1 was permitted as a boiler subject to the Case-by-Case MACT; Clean Air Act (CAA) §112(j). The existing CAA §112(j) permit conditions were revised to coordinate with the actual CAA§112(d) permit conditions that are now included in the permit to address the NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters," 40 CFR 63 Subpart DDDDD.

As it appeared at first to this engineer, the specific condition with allowed hours of operation during ozone season associated with the regulation 15A NCAC 02D .1409 did not appear to match those within the regulation, the applicability of this regulation was reviewed to see if additional changes were required as part of this renewal permit application. To summarize, the allowed hours of operation during ozone season did not appear to match that required by the actual rule. However, the air permit review associated with 09088T02 issued **February 6, 2004** appears to provide the explanation. In summary, Seasonal Emission Rate for Large Combustion Sources and, specifically, 15A NCAC 02D .1409(g) states that a company may propose to reduce emissions from other sources to satisfy its NOx reduction requirements. As such, Transco has proposed to reduce emissions from Mainline Unit 1. Continued compliance with this regulation is indicate as these emissions units are subject to periodic emissions testing and consistently demonstrate compliance with the NOx emission limit.

II. Facility Description

The facility is a natural gas compressor station that moves close to two billion cubic feet of natural gas per day. Current permitted equipment includes seven natural gas-fired lean burn internal combustion engines, one natural gas-fired rich burn internal combustion engine, and one natural gas-fired boiler as well as additional supporting equipment.

According to the report for the previous compliance inspection conducted on April 16, 2015, by Chris Lewter, former DAQ-WSRO Environmental Engineer, "*Transcontinental Gas Pipe Line Company, LLC delivers natural gas (NG) to various customers via its 10,200-mile interstate transmission pipeline system, which extends from South Texas to New York City. As NG flows along the pipeline, friction losses cause the NG to slow and the result is a loss of pressure along the pipeline. In order to make the NG flow continuously at a desired flow rate, it must be re-pressurized at suitable locations along the pipeline. This is accomplished by mechanically compressing the NG at compressor stations located along the pipeline. This facility (Station 155) is one of the 56 compressor stations located along the pipeline. The facility's mainline engines have not been utilized in approximately 3 years*

since the compressor stations immediately North and South of Station 155 (Reidsville (Station 160) and Mooresville (Station 150), respectively) seem to provide adequate pressure for the NG to flow."

At that time, according to Mr. Cowan, the Maintenance Specialist, the facility operates as needed, but is staffed 10 hours per day, 4 days a week for 52 weeks per year.

III. Permitted Sources

Changes are indicated by highlighting and underline:

Emission Source ID	Emission Source Description	Control Device ID	Control Device Description
ES-M/L1 ES-M/L2 ES-M/L3 **(MACT, Subpart ZZZZ)**	Three four-stroke natural gas-fired lean burn internal combustion engines (each rated at 3700 maximum brake horsepower output and 23.5 million Btu per hour heat input capacity)	NA	NA
ES-M/L4 **(MACT, Subpart ZZZZ)**	One four-stroke natural gas-fired lean burn internal combustion engine (rated at 4400 maximum brake horsepower output and 27.7 million Btu per hour heat input capacity)	NA	NA
ES-M/L5 ES-M/L6 **(MACT, Subpart ZZZZ)**	Two two-stroke natural gas-fired lean burn internal combustion engines (each rated at 4000 maximum brake horsepower output and 27.4 million Btu per hour heat input capacity)	NA	NA
ES-AUX1 **(MACT, Subpart ZZZZ)**	One four-stroke natural gas-fired lean burn internal combustion engine (rated at 808 maximum brake horsepower output and 6.1 million Btu per hour heat input capacity)	NA	NA
ES-A/C1 **(MACT, Subpart ZZZZ)**	One four-stroke natural gas-fired rich burn internal combustion emergency engine (rated at 170 maximum brake horsepower output)	NA	NA
ES-BLR1 **(02D .1109 Case-by-Case MACT and MACT Subpart DDDDD)**	One natural gas-fired boiler (4.18 million Btu per hour maximum heat input capacity)	NA	NA
ES-BDO	Natural Gas Pipeline Blowdown Operations	NA	NA

IV. Insignificant/Exempt Sources

No changes were required:

Emissions Source ID	Emissions Source Description
I-0007	Accessory Oil Tank #1 (5925 gallons capacity)
I-0008	Lube Oil Tank #2 (11600 gallons capacity)
I-0009	Lube Oil Tank #3 (11600 gallons capacity)
I-0012	Nordberg LOCW Surge Tank (2255 gallons capacity)
I-0013	Nordberg JW Surge Tank (9025 gallons capacity)
I-0014	Waste Oil Sump Tank (100 gallons capacity)
I-0016	Antifreeze Storage Tank (3160 gallons capacity)
I-0017	JW Storage Tank (2175 gallons capacity)
I-0018	#1 Lube Oil Sump – Units 1-4 (1357 gallons capacity)
I-0019	Accessory Sump Tank – Units 1-4 (700 gallons capacity)
I-0020	#1 Lube Oil Sump – Units 5-6 (1560 gallons capacity)
I-0021	Hydraulic Oil Sump Tank (657 gallons capacity)
I-0025	#1 M.U. Accessory Oil Surge Tank (700 gallons capacity)
I-0026	#2 M.U. Accessory Oil Surge Tank (700 gallons capacity)
I-0027	#3 M.U. Accessory Oil Surge Tank (700 gallons capacity)
I-0028	#4 M.U. Accessory Oil Surge Tank (890 gallons capacity)
I-0029	#4 M.U. Hydraulic Oil Tank (135 gallons capacity)
I-0030	#4 M.U.J.W. Surge Tank (1030 gallons capacity)
I-0031	#5 M.U.J.W. Surge Tank (575 gallons capacity)
I-0032	#5 M.U.L.O.C.W. Surge Tank (575 gallons capacity)
I-0036	#6 M.U. Hydraulic Oil Tank (40 gallons capacity)
I-0037	Wastewater Tank (8820 gallons capacity)
I-0038	Used Oil Tank (8820 gallons capacity)
I-0039	Natural Gas Condensate Tank (8820 gallons capacity)
I-FUG	Piping components fugitive emissions
I-PW	Parts Washer

V. History/ Background/ Application Chronology

December 16, 2011 – Permit **09088T09** issued as a Title V renewal.

March 28, 2013 – Robert Barker and Chris Lewter of the WSRO completed annual facility inspection and it was found to be operating in compliance.

October 16, 2013 – Permit **09088T10** issued pursuant to 15A NCAC 02Q .0504 under 15A NCAC 02Q .0300 permitting procedures with the requirement that a Title V Permit Application shall be filed on or before 12 months after the commencement of operation of ID No. ES-A/C1 after the issuance of Air Permit No. 09088T10. This application was to reclassify one existing engine as an emergency engine as defined in 40 CFR 63.6675. ES-A/C1 was permitted as a non-emergency reciprocating internal combustion engine (RICE).

February 11, 2014 – Robert Barker and Chris Lewter of the WSRO completed annual facility inspection and it was found to be operating in compliance.

February 3, 2015 – Permit **09088T11** issued as a significant modification of the permit. The application was submitted on or before 12 months after the commencement of operation of ID No. ES-A/C1 after the issuance of permit no. 09088T10

April 16, 2015 – Chris Lewter of the WSRO completed the annual facility inspection. The facility was found to be in compliance with the permit.

February 5, 2016 – Permit application **2900300.16A** received as Title V renewal application. Application was deemed complete for processing.

March 30, 2016 – Taylor Hartsfield of the WSRO completed the last annual facility inspection.

INSERT DATE – Draft permit sent to regional office, SSCB and Permittee for review prior to public notice and EPA review. Taylor Hartsfield of the WSRO provided the following comments on the draft permit and review *(RCO response in italics)*: INSERT COMMENTS RESPONSES HERE

INSERT DATE – Draft permit sent to 30-day public notice and 45-day EPA review. The 30-day public comment period ended **INSERT DATE** with the receipt of no comments. The 45-day EPA review period ended **INSERT DATE** with the receipt of X comments. *(RCO response in italics)*: INSERT COMMENTS RESPONSES HERE

VI. Permit Modifications/Changes and ESM Discussion

The following table describes the modifications to the current permit as part of the renewal process.

Existing Condition No.	Revised Condition No.	Changes
Cover Letter	Same	▪ Revised dates, revision numbers, header and footer etc. ▪ Inserted increment statement
Insignificant activities list	Same	▪ Inserted revised footnote regarding MACT and GACT guidance.
Permit Cover page	Same	▪ Revised permit number dates, etc.
Equipment list	Same	▪ Inserted MACT DDDDD designation as it will apply to Boiler ES-BLR1
2.1 A (Table)	Same	▪ Inserted odor regulation
2.1 B (Table)	Same	▪ Inserted odor regulation
2.1 C (Table)	Same	▪ Inserted odor regulation
2.1 C.4.m	Same	▪ Removed the language allowing for engine's usage for emergency demand response
2.1 C.4.o and p	Same	▪ Removed the language requiring records and reporting associated with usage of the engine for emergency demand response

Existing Condition No.	Revised Condition No.	Changes
2.1 D (Table)	Same	▪ Inserted 02D .0503 particulate regulation ▪ Inserted 02D .1111 boiler MACT regulation ▪ Inserted 02D .1806 odor regulation
2.1 D 1. a-c	New	▪ Inserted 02D .0503 particulate regulation
2.1 D 5. a	New	▪ Inserted language indicating CBC MACT effective until Boiler MACT takes effect
2.1 D 6. A-k	New	▪ Inserted 02D .1111 boiler MACT regulation
2.1 E (Table)	Same	▪ Inserted odor regulation
2.2 B.1.a	New	▪ Inserted odor regulation
2.3	Same	▪ Replace General Conditions with newest version 4.0

VII. Regulatory Review

The facility is currently subject to the following regulations:
15A NCAC 02D .0501, Compliance with Emission Control Standards
15A NCAC 02D .0516, Sulfur Dioxide Emissions from Combustion Sources
15A NCAC 02D .0521, Control of Visible Emissions
15A NCAC 02D .1109, Case-by-Case MACT; Clean Air Act (CAA) §112(j)
15A NCAC 02D .1409, Seasonal Emission Rate for Large Combustion Sources

A regulatory review for these existing regulations will not be included in this document with the following exceptions as noted:

The following additional applicable regulations are now included in this regulatory review:

15A NCAC 02D .0503, Particulates from Fuel Burning Indirect Heat Exchangers – This regulation was previously omitted and a condition was added for the natural gas-fired boiler **(ID No. ES-BLR1)** as the rule applies. According to this regulation, the allowable emission limit for particulate matter in lb/million Btu from the combustion of a fuel that are discharged from any stack or chimney into the atmosphere shall not exceed 0.60 lb/million Btu for a heat input up to and including 10 million Btu/hour. Boilers firing natural gas are expected to be able to comply with the allowed particulate emissions rate. Compliance is indicated.

15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions – This state enforceable only regulation was previously omitted and a condition was added as the rule will apply to the entire facility. Though there does not appear to be any odor complaints there is the potential of odorous emissions. Compliance is expected.

The following existing applicable regulations required revising and the revised conditions are included in this regulatory review:

15A NCAC 02D .1109, Case-by-Case MACT; Clean Air Act (CAA) §112(j) - The following condition as shown by highlighting was inserted into the existing Section 2.1 D.5.a to indicate that when the actual boiler MACT becomes effective the CBC MACT no longer will apply:

The Permittee shall use best combustion practices when operating the affected boiler **(ID No. ES-**

BLR1). The initial compliance date for this work practice standard and the associated monitoring, recordkeeping, and reporting requirements is **February 21, 2014**. These conditions need not be included on the annual compliance certification until after the initial compliance date.

The Permittee shall comply with the CAA §112(j) standard in this Section through **May 19, 2019**. The Permittee shall be subject to the requirements of the standard Section 2.1 D.6, below, starting **May 20, 2019**. Note that the requirements of this standard may require action on behalf of the Permittee prior to **May 20, 2019**.

15A NCAC 02D .1111, Maximum Achievable Control Technology (40 CFR63, Subpart ZZZZ) - The engine ES-A/C1 status was changed from a non-emergency unit to an emergency unit since the last permit renewal. See– Permit 09088T11 issued **February 3, 2015**. Per this rule, engines are considered "existing" if construction commenced before **June 12, 2006**, and are considered "new" if construction commenced on or after this date. ES-A/C1 is considered existing and emergency use only. The compliance date was **October 19, 2013**. When this permit was issued, this engine became subject to the following requirements:

- Emergency stationary RICE must a) change oil and filter every 500 hours of operation or annually, whichever comes first; b) inspect air cleaner or spark plugs every 1,000 hours of operation or annually, whichever comes first; and c) inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. There are no other operating limitations, fuel requirements, or performance tests required.
- The facility with an engine subject to the oil change requirements has the option of utilizing an oil analysis program in order to extend the specified oil change requirement, as described under §63.6625(j).
- The stationary RICE must be operated and maintained according to the manufacturer's emission-related operation and maintenance instructions, or facilities must develop and follow their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- The engine's time spent at idle during startup must be minimized. The facility must also minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
- Operation of the engine for any reason other than emergency operation, maintenance and testing, and operation in non-emergency situations for up to 50 hours per year is prohibited. There is no time limit on the use of emergency stationary RICE in emergency situations. Operation for maintenance checks and readiness testing is limited to 100 hours per year. Operation in non-emergency situations is allowed up to 50 hours per year, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility.
- The engine must be equipped with a non-resettable hour meter. The facility must keep records which would support that the 100 hour per year operating limit is not exceeded, and the facility must document why the engine was operated and maintain records to support that the work practices were followed.
- Records regarding maintenance and any malfunction, including occurrence, duration, and corrective action, must be kept.

EPA has since vacated the portion of the NSPS and MACTs that apply to emergency engines related to their current ability to operate less than 100 hours in demand response. If these engines want to retain the ability to operate under a contractual agreement to provide power, they can NO LONGER be considered emergency. It appears this particular engine is not operated in a demand response mode, even so, the existing permit language does require revising.

Following in its entirety is the revised Section 2.1 C.5. condition with changes indicated by highlighting and strike-through:

15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.6585, 63.6590(a)(1)(ii)]

a. For this emission source (an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, "Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

Definitions and Nomenclature

b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 63.6675 shall apply.

Applicability Date [40 CFR 63.6595(a)(1)]

c. The Permittee shall comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

Notifications [40 CFR 63.6645(a)(5)]

d. The Permittee has no notification requirements.

General Provisions [40 CFR 63.6665]

e. The Permittee shall comply with the General Provisions as applicable pursuant to Table 8 of 40 CFR 63 Subpart ZZZZ

Operating and Maintenance Requirements [15A NCAC 002Q .0508(b)]

f. During periods of startup of the IC engine, the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[40 CFR 63.6602 and 63.6625(h)]

g. Except during periods of startup of the IC engine, the Permittee shall:
   i. Change oil and filter every 500 hours of operation or annually, whichever comes first;
   ii. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and
   iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary

   [40 CFR 63.6602, Table 2c]

h. The Permittee shall have the option to utilize the oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in condition g. [40 CFR 63.6602, Table 2c, 63.6625(i)]

i. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in condition g., or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. [40 CFR 63.6602, Table 2c]

j. The permittee shall be in compliance with the emission limitations, operating limitations and other requirements in this subpart that apply at all times. [40 CFR 63.6605(a)]

k. The Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air

pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

l. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e) and 63.6640(a), Table 6]

m. In order for the engine to be considered an emergency stationary RICE under this condition, any operation other than emergency operation, maintenance and testing, ~~emergency demand response~~, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) below, is prohibited.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs (i) ~~through (iii)~~ below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) below counts as part of the 100 hours per calendar year allowed by this paragraph (2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine.

The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

~~(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP–002–3, Capacity and Energy Emergencies (incorporated by reference, see § 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP–002–3.~~

~~(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.~~

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing ~~and emergency demand~~ response provided in paragraph (2) above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 63.6640(f)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if conditions **e. through m**. are not met.

Monitoring [15A NCAC 02Q .0508(f)]

n. The Permittee shall install a non-resettable hour meter on the IC engine if one is not already installed. [40 CFR 63.6625(f)]

Recordkeeping [15A NCAC 02Q .0508(f)]

o. The Permittee shall keep the following:
   i. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]
   ii. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]
   iii. Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(4)]
   iv. Records of actions taken during periods of malfunction to minimize emissions in accordance with **condition k**., including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]
   v. Records of the maintenance conducted on the RICE pursuant to **condition l**. [40 CFR 63.6655(d) and (e)]
   vi. Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. ~~If the engine is used for the purposes specified in (m)(2)(ii) or (iii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine~~

p. The Permittee shall keep each record in a form suitable and readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a), (b), (c)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if conditions **n. through p**. are not met.

Reporting [15A NCAC 02Q .0508(f)]

q. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance must be clearly identified. [40 CFR 63.6640(b),(e), and 63.6650(f)]
   i. The summary report shall also include any reporting required under **condition i**., as necessary. [40 CFR 63.6602, Table 2c]

~~r. If the Permittee owns or operates an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in condition (m)(2)(ii) and (iii), the Permittee shall submit an annual report according to the requirements at 40 CFR 63.6650(h). This report must be submitted to the Regional Supervisor and the EPA. [40 CFR 63.6650(h)]~~

The Permittee shall be deemed in noncompliance with the reporting requirements of 15A NCAC 02D .1111 if **condition~~s~~ q. ~~and r.~~** is ~~are~~ not met.

The last inspection report indicates the engine is in compliance with this regulation. Continued compliance is expected.

15A NCAC 02D .1111, Maximum Achievable Control Technology (40 CFR63, Subpart DDDDD) - The Permitting Section's SOP requires that when a permit is being renewed facilities with sources that are subject to 15A NCAC 02D .1109, Case-by-Case MACT; Clean Air Act (CAA) §112(j) the actual boiler MACT be included in the permit. The conditions are written to indicate that when the actual boiler MACT becomes effective the CBC MACT no longer will apply.

The entire condition as now found in the Section 2.1 D. 6 and as indicated by highlighting follows:

15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.7485, .7490(d), .7499(l)]

a. For the existing sources(s) designed to burn gas 1 fuels with a heat input capacity of less than or equal to 5 million Btu per hour, the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."

i. The Permittee shall comply with the CAA §112(j) standard in Section 2.1 D.4, above, through **May 19, 2019**. The Permittee shall be subject to the requirements of this standard starting **May 20, 2019**. Note that the requirements of this standard may require action on behalf of the Permittee prior to **May 20, 2019**.

Definitions and Nomenclature [40 CFR 63.7575]

b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

40 CFR Part 63 Subpart A General Provisions [40 CFR 63.7565]

c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to 40 CFR Part 63, Subpart DDDDD.

Compliance Date [40 CFR 63.7510(e), 63.56(b)]

d. The Permittee shall complete the initial tune up and the one-time energy assessment no later than May 20, 2019.

Notifications [40 CFR 63.7545(e)(8), 63.7530(e),(f)]

e. The Permittee shall submit a Notification of Compliance Status. The notification must be signed by a responsible official and sent before the close of business on the 60th day following the completion of the initial tune up and one time energy assessment (whichever is later). The notification shall contain the following:

i. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, and description of the fuel(s) burned.

ii. the following certification(s) of compliance, as applicable:

A.- "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR 63 Subpart DDDDD at the site according to the procedures

in.40 CFR 63.7540(a)(10)(i) through (vi)' [i.e., conditions g.i. through g.v. and l. ii.]; and

B.- "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)" [i.e., condition k.] and is an accurate depiction of the facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

General Compliance Requirements [40 CFR 63.7505(a), 63.7500(f)]

f. The Permittee shall be in compliance with the work practice standards in this subpart. These standards apply at all times the affected unit is operating.

Work Practice Standards [15A NCAC 002Q .0508(f)]

g. The Permittee shall conduct a tune-up of the process heater every five years as specified below.

i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled or unscheduled unit shutdown, but the burner must be inspected at least once every 72 months

ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown)'

iv. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject.

v. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

[40CFR 63.7500(a), (e), 63.7540(a)(10), (a)(12)]

h. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up. [40CFR 63.7515(d)]

i. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

[40 CFR 63.7540(a)(13), 63.7515(g)]

j. At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.7500(a)(3)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in f. through j. are not met.

Energy Assessment Requirements [15A NCAC 002Q .0508(f)]

k. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor. The energy assessment must address the requirements in 40 CFR 63 Subpart DDDDD, Table 3, with the extent of the evaluation for items (a) to (e) in Table 3 appropriate for the on-site

technical hours listed in §63.7575: [§63.7500(a)(1), Table 3]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in condition k. are not met.

VIII. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

NSPS – The Permittee is not currently subject to any New Source Performance Standards. This permit renewal does not affect this status.

NESHAPS/MACT/112j –During the next to last permit renewal cycle, all existing units were analyzed for applicability to the National Emission Standards for Hazardous Air Pollutants for Stationary Internal Combustion Engines (40 CFR 63, Subpart ZZZZ). Mainline units one through six **(ID Nos. ES-M/L1 through ES-M/L6)** and auxiliary unit **(ID No. ES-AUX1)** were each determined to have no applicable requirements as per 40 CFR 63.6590(b)(3). This permit renewal does not affect this status.

The Permittee also operates one additional auxiliary engine **(ID No. ES-A/C1)**. At the time of the last permit renewal, this unit was determined to not have any requirements under this Subpart because of a size exemption found in 40 CFR 63.6590(b)(3). However, EPA promulgated modifications to this Subpart on **January 18, 2008, March 3, 2010, and August 20, 2010**. As an existing non-emergency spark ignition 4 stroke rich burn engine (4SRB) with a brake horsepower rating between 100 and 500 horsepower located at a major source of HAPs as part of these modifications, this unit lost its exemption from the Subpart. As per the permit history above, on **February 10, 2011** the Permittee submitted to DAQ initial notification of applicability for this unit. They stated *"Transco has identified the above stationary RICE as subject to emission standards specified in 40 CFR 63, Subpart ZZZZ. An evaluation of potential compliance options for the affected source is currently underway. Compliance options include engine reclassification to emergency status, engine reclassification to limited use status, engine retirement, engine replacement, or engine retrofit. The affected RICE will be in compliance with the applicable requirements by the **October 19, 2013** compliance deadline."* On **October 16, 2013** permit 09088T10 was issued pursuant to 15A NCAC 02Q .0504 under 15A NCAC 02Q .0300 permitting procedures with the requirement that a Title V Permit Application shall be filed on or before 12 months after the commencement of operation of ID No. ES-A/C1 after the issuance of Air Permit No. 09088T10. This application was to reclassify the existing engine as emergency engine as defined in 40 CFR 63.6675. **ES-A/C1** was permitted as a non-emergency reciprocating internal combustion engines (RICE). Permit **09088T11** was issued **February 3, 2015** with a permit condition for an emergency unit. As part of this renewal permit changes were made to this permit condition as discussed in Section VII. Regulatory Review, above.

PSD – The Permittee is not currently subject to any Prevention of Significant Deterioration requirements. This permit renewal does not affect this status.

112(r) – The Permittee is not subject to Section 112(r) of the Clean Air Act requirements because the facility does not store any of the regulated substances in quantities above the thresholds in the Rule. This permit renewal does not affect this status.

CAM – 40 CFR 64 requires that a continuous assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source threshold, and use a control device to meet an applicable standard. Because no control devices are in use at the facility, CAM is not applicable. This permit renewal does not affect this status.

IX. Facility Wide Air Toxics

The facility is not currently subject to any air toxics standards. This permit action does not affect this status. It should be noted that the requirements for the submittal of a last MACT/air toxics demonstration at the time of compliance with the facility's last MACT per 15A NCAC 02Q .0705 do not apply at this time because of the exemption of combustion sources per 15A NCAC 02Q .0702.

X. Facility Emissions Review

Actual emissions for 2010 through 2014 are reported in the header of this permit review.

XI. Compliance Status

DAQ has reviewed the compliance status of this facility. During the most recent last annual facility inspection, conducted on **March 30, 2016**, Taylor Hartsfield of the WSRO indicated that the facility appeared to be in compliance with all applicable requirements. Additionally, a signed Title V Compliance Certification (Form E5) indicating that the facility was in compliance with all applicable requirements was submitted with this renewal application and signed by the Responsible Official on **February 3, 2016**.

Five-year compliance history
The facility has not been issued any Notices of Deficiency or Violation within the last five years.

XII. Stipulation Review

The facility was last inspected by Taylor Hartsfield of the WSRO on **March 30, 2016**. At that time of the inspection, the facility appeared to be in compliance with the applicable air quality regulations. It was noted no necessary permit modifications with the exception of the following:

- A condition for 02D .0503 "Particulates from Fuel Burning Indirect Heat Exchangers" should be added for the natural gas-fired boiler (ES-BLR1) as the rule applies.
- A condition for 02D .1806 "Control and Prohibition of Odorous Emissions" should be added for facility-wide affected sources as the rule applies.

These regulations were added to the permit. See discussion in Section VII - Regulatory Review, above.

XIII. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above. Mecklenburg and Forsyth Counties are affected Local Programs within 50 miles of this facility.

XIV. Conclusions, Comments, and Recommendations

A professional engineer's seal was not required for this renewal.

A consistency determination was not required for this renewal.

WSRO recommends issuance of the permit and was presented with a DRAFT permit prior to notice and issuance.

RCO concurs with WSRO's recommendation to issue the renewed air permit.